

Form PTO-1449 (Rev. 2-32)		U.S. Department of Commerce Patent & Trademark Office		Atty. Docket No. Q76117	Serial No.: <i>10/600,833</i> Confirmation No.: <u>To be Assigned</u>	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant: Hiroyuki KIYOKU, et al.				
<i>TDS F-1A 6/23/03</i>		Filing Date: 06/23/03		Prior Art Group: <del>2822</del> 2826		
U.S. PATENT DOCUMENTS						
Examiner Initial	Document Number	Date	Name	Class	Sub-Class	Filing Date (if appropriate)
<i>TD</i>	4,482,422	11/13/1984	McGinn et al.	117	95	
<i>TD</i>	4,578,142	03/25/1986	Corboy et al.	117	89	
<i>TD</i>	4,908,074	03/13/1990	Hosoi et al.	148	33.2	
<i>TD</i>	5,239,188	08/24/1993	Takeuchi et al.	257	76	
<i>TD</i>	5,247,533	09/21/1993	Okazaki et al.	372	45	
<i>TD</i>	5,290,393	03/01/1994	Nakamura et al.	438	509	
<i>TD</i>	5,364,815	11/15/1994	Osada	438	489	
<i>TD</i>	5,679,152	10/21/1997	Tischler et al.	117	97	
<i>TD</i>	5,709,745	01/20/1998	Larkin et al.	117	96	
<i>TD</i>	5,727,008	03/10/1998	Koga et al.	372	43	
<i>TD</i>	5,764,673	06/09/1998	Kawazu et al.	372	45	
<i>TD</i>	5,766,695	06/16/1998	Nguyen et al.	427	553	
<i>TD</i>	5,773,369	06/30/1998	Hu et al.	438	746	
<i>TD</i>	5,789,265	08/04/1998	Nitta et al.	438	22	
<i>TD</i>	5,880,485	03/09/1999	Marx et al.	257	94	
<i>TD</i>	6,051,849	04/18/2000	Davis et al.	257	103	02/27/1998
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<i>TD</i>	7-201745 A	08/04/1995	JAPAN	H01L	021/205	
<i>TD</i>	WO 97/11518	03/27/1997	PCT	H01S	3/18	Yes-EP 0 852 416 A1
<i>TD</i>	0 852 416 A1	07/08/1998	EP	H01S	3/18	
<i>TD</i>	WO 99/44224	09/02/1999	PCT	H01L	21/20	
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	International Search Report, PCT/US98/01640, July 14, 1998					
<i>TD</i>	Defendant Nichia America Corporation's Motion for Partial Summary Judgment, <i>North Carolina State University and Cree, Inc., v. Nichia Corporation and Nichia America Corporation</i> , No: 5:00-CV-703-F(2), U.S. District Court for the Eastern District of North Carolina Southern Division, Dec. 11, 2000					
<i>TD</i>	International Search Report, PCT/US99/04346, June 9, 1999					
<i>TD</i>	Lester et al, "High Dislocation Densities in High Efficiency GaN-Based Light-Emitting Diodes", <i>Appl. Phys. Lett.</i> , 66, 1995, pp. 1249-1251					
<i>TD</i>	Nakamura, Shuji and Gerhard Fasol, <i>The Blue Laser Diode: GaN Based Light Emitters and Lasers</i> , Berlin: Springer, 1997, pp. 282-304					
EXAMINER:	<i>TD</i>		DATE CONSIDERED: <i>6/23/03</i>			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication.						

Form PTO-1449 (Rev. 2-32)		U.S. Department of Commerce Patent & Trademark Office	Atty. Docket No. Q76117	Serial No.: 101608, 833 Confirmation No.: To be Assigned			
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant: Hiroyuki KIYOKU, et al.					
IDS Filed 6/23/03		Filing Date: 06/23/03	Prior Art Group: 2822-2828				
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Sub-Class	Filing Date (if appropriate)
TD		RE 34,861	02/14/1995	Davis et al.	117	86	
TD		4,946,547	08/07/1990	Palmour et al.	117	97	
TD		4,912,064	03/27/1990	Kong et al.	438	507	
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TD		4,651,407	03/24/1987	Bencuya	438	193	
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TD		Zheleva et al., <i>Dislocation Density Reduction Via Lateral Epitaxy in Selectively Grown GaN Structures</i> , Appl. Phys. Lett. Vol. 71, No. 17, October 27, 1997, pp. 2472-2474					
TD		Doverspike et al., <i>The Effect of GaN and AlN Buffer Layers on GaN Film Properties Grown on Both C-Plane and A-Plane Sapphire</i> , Journal of Electronic Materials, Vol. 24, No. 4, 1995, pp. 269-273					
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TD		Nakamura, <i>GaN Growth Using GaN Buffer Layer</i> , Japanese Journal of Applied Physics, Vol. 30, No. 10A, October 1991, pp. L1705-L1707					
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Form PTO-1449 (Rev. 2-32)		U.S. Department of Commerce Patent & Trademark Office	Atty. Docket No. Q76117	Serial No.: 101600,833 Confirmation No.: To be Assigned
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant: Hiroyuki KIYOKU, et al.		
IDS Filed 6/23/03		Filing Date: 06/23/03	Prior Art Group: 2822-2826	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
Examiner Initial	Document			
TB	International Search Report, PCT/US99/12967, October 18, 1999			
TB	Kapolnek et al., "Anisotropic Epitaxial Lateral Growth in GaN Selective Area Epitaxy", Appl. Phys. Lett. 71(9), 1 September 1997, pp. 1204-1206			
TB	Usui et al., "Thick GaN Epitaxial Growth With Low Dislocation Density by Hydride Vapor Phase Epitaxy", Jpn. J. Appl. Phys., Vol. 36, Part 2, No. 7B, 15 July 1997, pp. 899-902			
TB	Nam et al., "Growth of GaN and Al <sub>0.2</sub> Ga <sub>0.8</sub> N on Patterned Substrates Via Organometallic Vapor Phase Epitaxy", Jpn. J. Appl. Phys., Vol. 36, Part 2, No. 5A, 1 May 1997, pp. 532-535			
TB	Nam et al., "Selective Growth of GaN and Al <sub>0.2</sub> Ga <sub>0.8</sub> N on GaN/AlN/6H-SiC(0001) Multilayer Substrates Via Organometallic Vapor Phase Epitaxy", Proceedings MRS, December 1996, 6 pp.			
TB	Kapolnek et al., "Selective Area Epitaxy of GaN for Electron Field Emission Devices", Journal of Crystal Growth, 154(1), 1996, pp.1-4			
TB	Weeks et al, "GaN Thin Films Deposited Via Organometallic Vapor Phase Epitaxy on $\alpha$ (6H)-SiC(0001) Using High-Temperature Monocrystalline AlN Buffer Layers", Appl. Phys. Lett. 67(3), 17 July 1995, pp. 401-403			
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TB	Zheleva et al., Pendo-Epitaxy: A New Approach for Lateral Growth of Gallium Nitride Films, Journal of Electronic Materials, Vol. 28, No. 4, February 1999, pp. L5-L8			
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TB	Nakamura et al., InGaN/GaN/AlGaN-Based Laser Diodes Grown on GaN Substrates With a Fundamental Transverse Mode, Jpn. J. Appl. Phys., Vol. 37, September 15, 1998, pp. L1020-L1022			
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Substitute for Form 1449 A & B/PTO		Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Div. of Application Number	10/600, 833 10/261,487
(use as many sheets as necessary)		Confirmation Number	Unknown
I DS F1d 6/23/03		Filing Date	June 23, 2003
		First Named Inventor	KIYOKU, Hiroyuki
		Prior Art Unit	2022-2026
		Prior Examiner Name	Stephen D. Meier
Sheet	4	of	4
		Attorney Docket Number	Q76117

## **U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code <sup>2</sup> (if known)		
TY		US 5,290,393		03-1994	Nakamura
TD		US 6,362,515		03-2003	Hayakawa
TP		US 6,462,355		10-2002	Linthicum et al.
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TB		US 6,153,010		11-2000	Kiyoku et al.
		US			

## **FOREIGN PATENT DOCUMENTS**

**OTHER ART - NON PATENT LITERATURE DOCUMENTS**

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